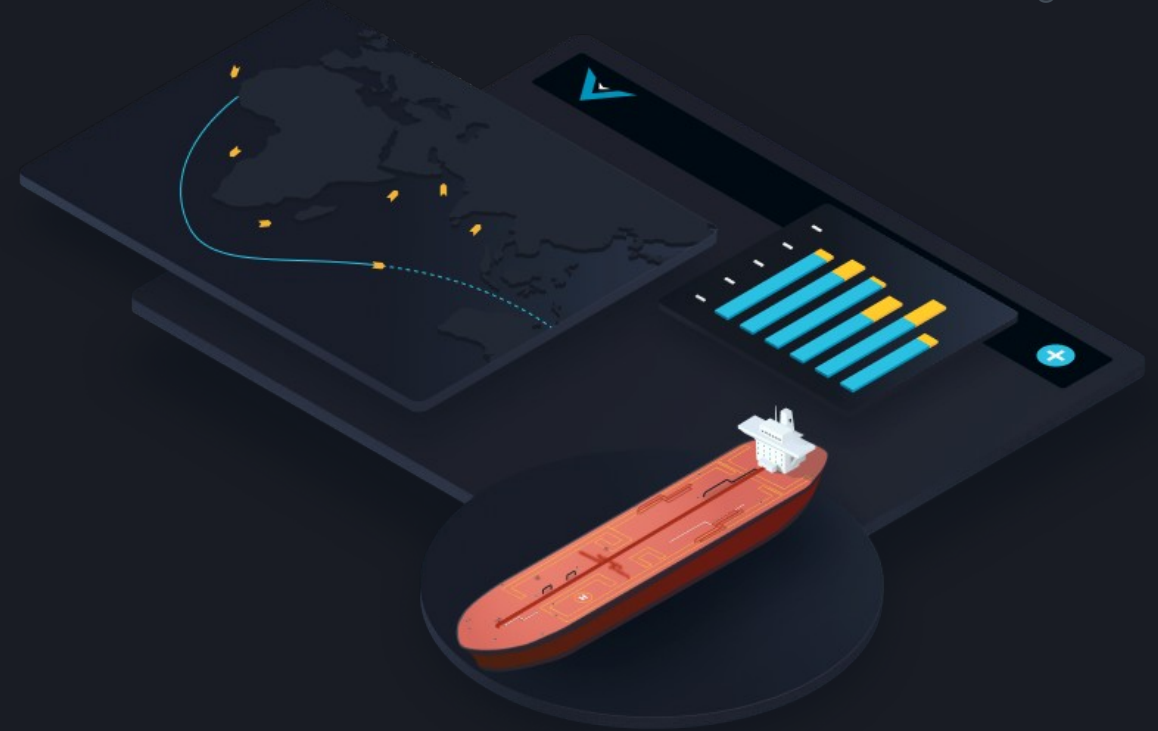


OIL IN THE CROSSHAIRS

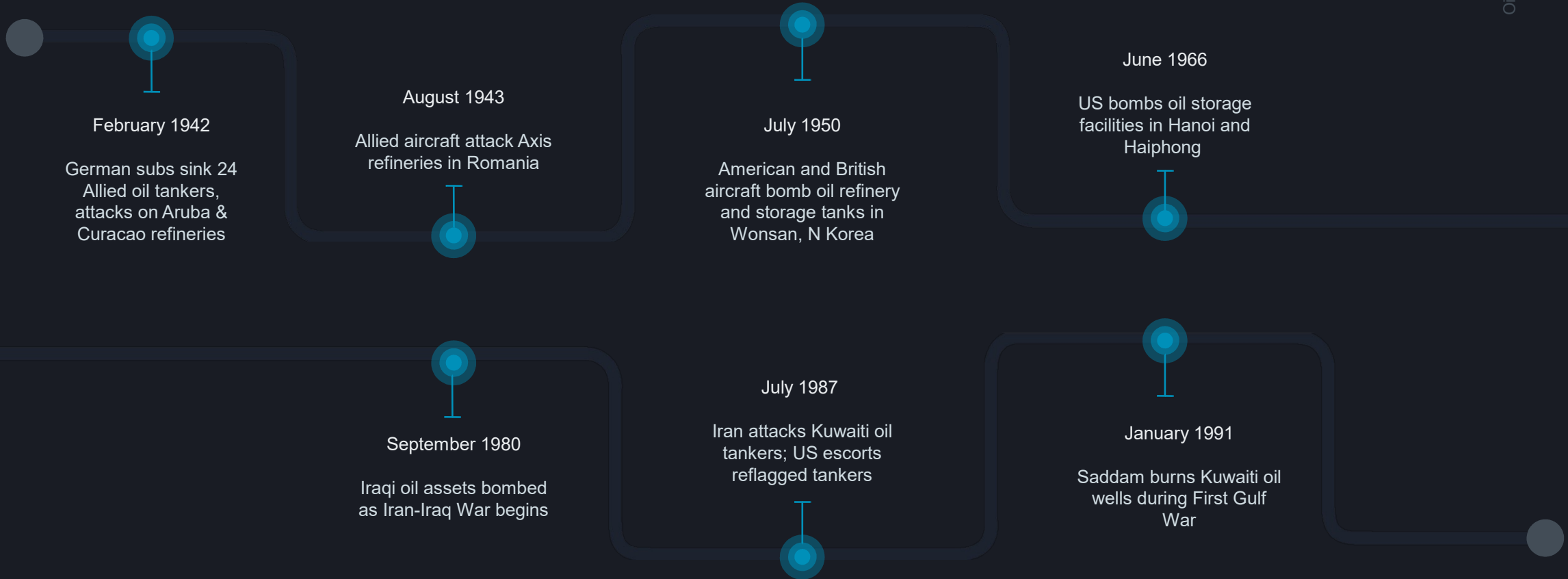


Key Messages

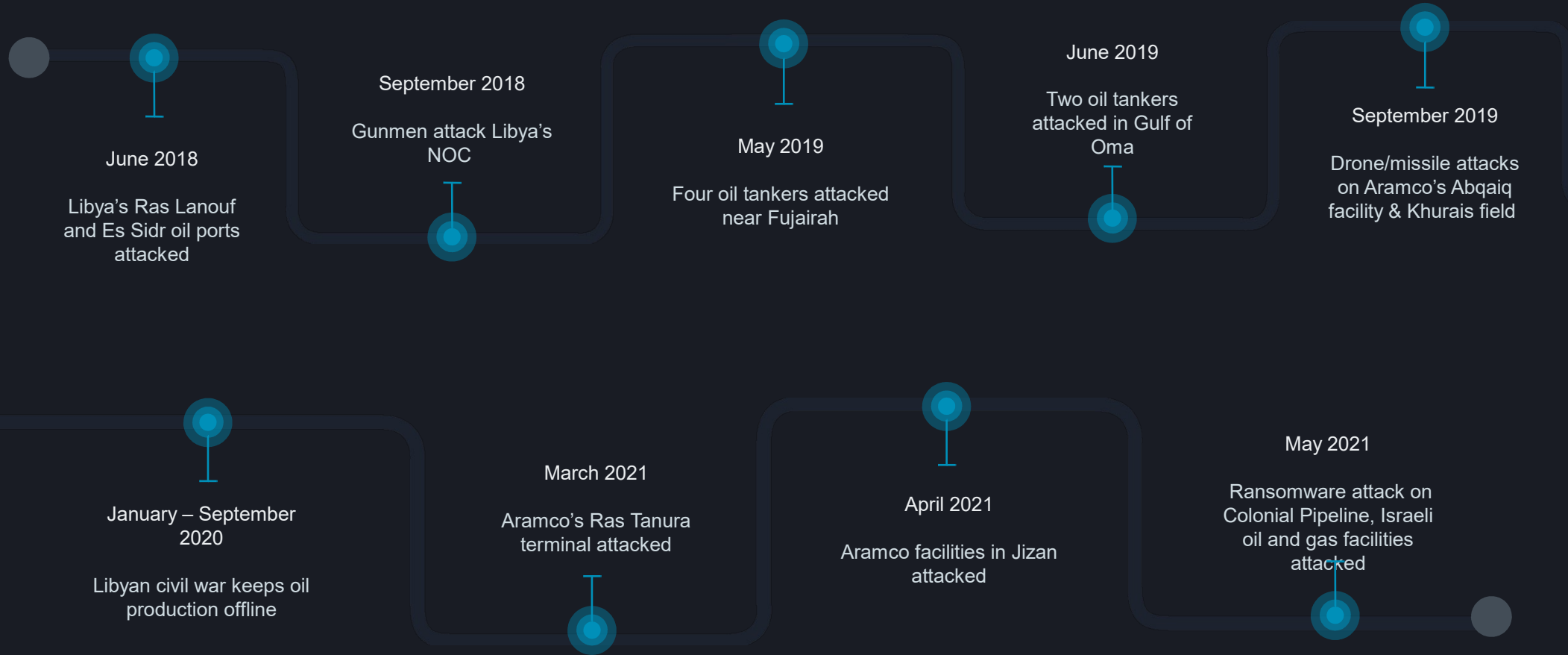
- The frequency of attacks on oil assets has recently increased
- Status of market “cushions” largely determines oil price reactions
- Government and industry must partner to strengthen defenses



Oil in the Crosshairs: The First Half Century



More Recently: A Pattern of Proliferation



The Oil Market's "Shock Absorbers" for Smoothing Supply Disruptions



INVENTORIES

- IEA mandates inventories
- Has coordinated past releases
- US crude & product SPRs
- US commercial stocks
- Floating storage sometimes augments onshore inventories

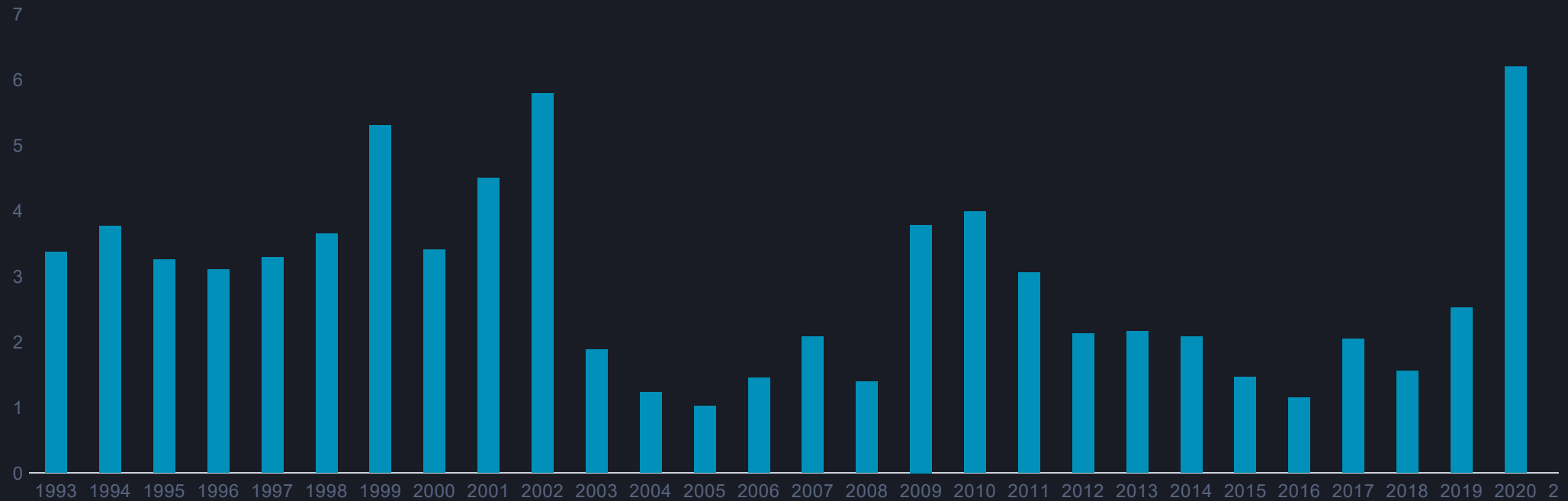


SPARE CAPACITY

- Held by few OPEC producers
- Curtailments by policy
- Offset by unintended disruptions
- How to characterize sanctioned oil?

OPEC Spare Production Capacity

(million barrels per day)



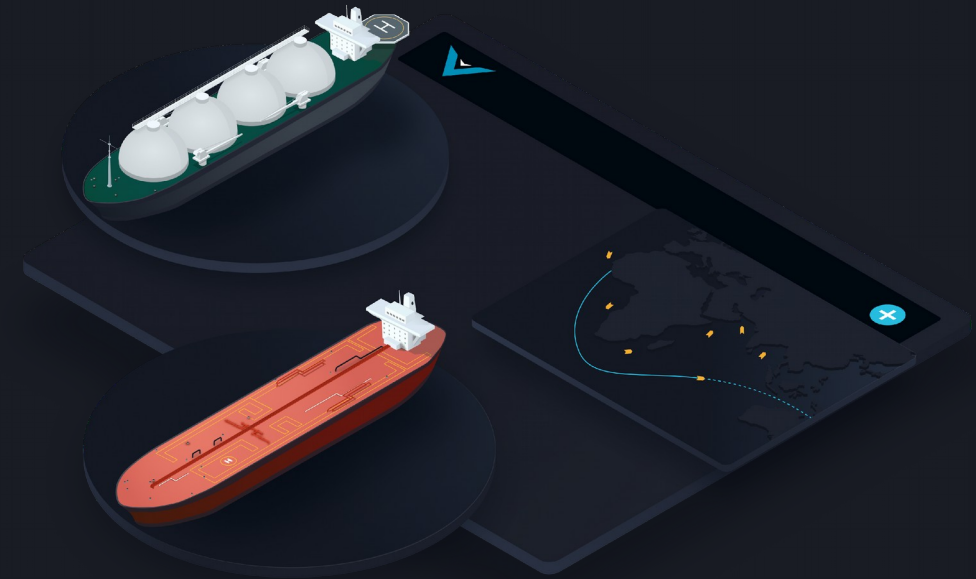
Factors to Amplify Price Effects from Future Disruptions

DECARBONIZATION

Energy companies will aggressively implement ESG strategies that increase the cost of adding new capacity, and in some cases reduce oil supplies – but oil demand will not moderate in kind. Future disruptions will thus occur amid tighter supply-demand balances.

RISK PROLIFERATION

Energy remains one of the highest-profile economic sectors vulnerable to attack. The modes of attack available to malign actors – from longer-range and accurately delivered weaponry to “digital disruptions” in the cyber sphere – are likely to increase, bringing even more potential targets into the crosshairs.



Thank you

London

Vortexa Ltd.
Portsoken House
155 Minories
London – EC3N
1LJ

Singapore

Vortexa Asia Pte. Ltd.
8 Cross Street #18-
01
Singapore
048424

Houston

Vortexa Inc.
2200 Post Oak Blvd, Suite
1000
Houston, TX 77056
USA



VORTEXA

www.vortexa.com